RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 09/762,577B
Source: IFW16
Date Processed by STIC: 03/03/2006

ENTERED

IFW16

RAW SEQUENCE LISTING DATE: 03/03/2006
PATENT APPLICATION: **US/09/762,577B** TIME: 10:45:23

Input Set : **A:\2486-109REPLACEMENTSEQLISTCOPY1.TXT**
Output Set: **N:\CRF4\03032006\I762577B.raw**

<110> APPLICANT: Dranoff, Glenn
Schmollinger, Jan
Hodi, F. Stephen
Mollick, Joseph
<120> TITLE OF INVENTION: TUMOR ANTIGENS AND USES THEREOF
<130> FILE REFERENCE: 2486/109
<140> CURRENT APPLICATION NUMBER: US 09/762,577B
<141> CURRENT FILING DATE: 2002-08-29
<150> PRIOR APPLICATION NUMBER: 60/095,766
<151> PRIOR FILING DATE: 1998-08-07
<160> NUMBER OF SEQ ID NOS: 68
<170> SOFTWARE: FastSEQ for Windows Version 4.0
<210> SEQ ID NO: 1
<211> LENGTH: 1433
<212> TYPE: DNA
<213> ORGANISM: homo sapiens
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cgaggacggc gaggccgccg gcgcgaggga cgcggacgca ggggacgagg acgaggagtc 180
ggaggagccg cgggcggcgc ggcccagctc gttccagtcc agaatgacag ggtccagaaa 240
ctggcgagcc acgagggaca tgtgtaggta tcggcacaac tatccggatc tggtggaacg 300
agactgcaat ggggacacgc caaacctgag tttctacaga aatgagatcc gcttcctgcc 360
caacggctgt ttcattgagg acattcttca gaactggacg gacaactatg acctccttga 420
ggacaatcac tcctacatcc agtggctgtt tcctctgcga gaaccaggag tgaactggca 480
tgccaagccc ctcacgctca gggaggtcga ggtgtttaaa agctcccagg agatccagga 540
gcggcttgtc cgggcctacg agctcatgct gggcttctac gggatccggc tggaggaccg 600
aggcacgggc acggtgggcc gagcacagaa ctaccagaag cgcttccaga acctgaactg 660
gcgcagccac aacaacctcc gcatcacacg catcctcaag tcgctgggtg agctgggcct 720
cgagcacttc caggcgccgc tggtccgctt cttcctggag gagacgctgg tgcggcggga 780
gctgccgggg gtgcggcaga gtgccctgga ctacttcatg ttcgccgtgc gctgccgaca 840
ccagcgccgc cagctggtgc acttcgcctg ggagcacttc cggccccgct gcaagttcgt 900
ctgggggccc caagacaagc tgcggaggtt caagcccagc tctctgcccc atccgctcga 960
gggctccagg aaggtggagg aggaaggaag ccccggggac cccgaccacg aggccagcac 1020
ccagggtcgg acctgtgggc cagagcatag caagggtggg ggcagggtgg acgaggggcc 1080
ccagccacgg agcgtggagc cccaggatgc gggacccctg gagaggagcc agggggatga 1140
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gaagctggag ctgagccggc gggagcagcc gcccacagag ccaggccctc agagtgcctc 1260
agaggtggag aagatcgctc tgaatttgga ggggtgtgcc ctcagccagg gcagcctcag 1320
gacggggacc caggaagtgg gcggtcagga ccctggggag gcagtgcaac cctgccggca 1380
acccctggga gccagggtgg ccgacaaggt gaggaaaccg gaggaaggtg gat 1433
<210> SEQ ID NO: 2
<211> LENGTH: 477

(Cp9-6)

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Input Set : **A:\2486-109REPLACEMENTSEQLISTCOPY1.TXT**
Output Set: **N:\CRF4\03032006\I762577B.raw**

<212> TYPE: PRT
<213> ORGANISM: homo sapiens
<400> SEQUENCE: 2

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            20                  25                  30
Glu Asp Ala Glu Asp Glu Asp Cys Glu Asp Gly Glu Ala Ala Gly Ala
        35                  40                  45
Arg Asp Ala Asp Ala Gly Asp Glu Asp Glu Glu Ser Glu Glu Pro Arg
    50                  55                  60
Ala Ala Arg Pro Ser Ser Phe Gln Ser Arg Met Thr Gly Ser Arg Asn
65                  70                  75                  80
Trp Arg Ala Thr Arg Asp Met Cys Arg Tyr Arg His Asn Tyr Pro Asp
                85                  90                  95
Leu Val Glu Arg Asp Cys Asn Gly Asp Thr Pro Asn Leu Ser Phe Tyr
            100                 105                 110
Arg Asn Glu Ile Arg Phe Leu Pro Asn Gly Cys Phe Ile Glu Asp Ile
        115                 120                 125
Leu Gln Asn Trp Thr Asp Asn Tyr Asp Leu Leu Glu Asp Asn His Ser
    130                 135                 140
Tyr Ile Gln Trp Leu Phe Pro Leu Arg Glu Pro Gly Val Asn Trp His
145                 150                 155                 160
Ala Lys Pro Leu Thr Leu Arg Glu Val Glu Val Phe Lys Ser Ser Gln
                165                 170                 175
Glu Ile Gln Glu Arg Leu Val Arg Ala Tyr Glu Leu Met Leu Gly Phe
            180                 185                 190
Tyr Gly Ile Arg Leu Glu Asp Arg Gly Thr Gly Thr Val Gly Arg Ala
        195                 200                 205
Gln Asn Tyr Gln Lys Arg Phe Gln Asn Leu Asn Trp Arg Ser His Asn
    210                 215                 220
Asn Leu Arg Ile Thr Arg Ile Leu Lys Ser Leu Gly Glu Leu Gly Leu
225                 230                 235                 240
Glu His Phe Gln Ala Pro Leu Val Arg Phe Phe Leu Glu Glu Thr Leu
                245                 250                 255
Val Arg Arg Glu Leu Pro Gly Val Arg Gln Ser Ala Leu Asp Tyr Phe
            260                 265                 270
Met Phe Ala Val Arg Cys Arg His Gln Arg Arg Gln Leu Val His Phe
        275                 280                 285
Ala Trp Glu His Phe Arg Pro Arg Cys Lys Phe Val Trp Gly Pro Gln
    290                 295                 300
Asp Lys Leu Arg Arg Phe Lys Pro Ser Ser Leu Pro His Pro Leu Glu
305                 310                 315                 320
Gly Ser Arg Lys Val Glu Glu Glu Gly Ser Pro Gly Asp Pro Asp His
                325                 330                 335
Glu Ala Ser Thr Gln Gly Arg Thr Cys Gly Pro Glu His Ser Lys Gly
            340                 345                 350
Gly Gly Arg Val Asp Glu Gly Pro Gln Pro Arg Ser Val Glu Pro Gln
        355                 360                 365
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Output Set: **N:\CRF4\03032006\I762577B.raw**

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108 Asp Ala Gly Pro Leu Glu Arg Ser Gln Gly Asp Glu Ala Gly Gly His
109     370                 375                 380
110 Gly Glu Asp Arg Pro Glu Pro Leu Ser Pro Lys Glu Ser Lys Lys Arg
111 385                 390                 395                 400
112 Lys Leu Glu Leu Ser Arg Arg Glu Gln Pro Pro Thr Glu Pro Gly Pro
113                 405                 410                 415
114 Gln Ser Ala Ser Glu Val Glu Lys Ile Ala Leu Asn Leu Glu Gly Cys
115             420                 425                 430
116 Ala Leu Ser Gln Gly Ser Leu Arg Thr Gly Thr Gln Glu Val Gly Gly
117         435                 440                 445
118 Gln Asp Pro Gly Glu Ala Val Gln Pro Cys Arg Gln Pro Leu Gly Ala
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120 Arg Val Ala Asp Lys Val Arg Lys Pro Glu Glu Gly Gly
121 465                 470                 475
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125 <211> LENGTH: 978
126 <212> TYPE: DNA
127 <213> ORGANISM: homo sapiens
129 <400> SEQUENCE: 3
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131 gcaccccaag gctggacaca gtgagaacgg ggttgaggag gacacagaag gtcgaacggg 120
132 gcccaaagaa ggtacccctg ggagcccatc ggagacccca ggccccagcc cagcaggacc 180
133 tgcaggggac gagccagccg agagcccatc ggagacccca ggcccccgcc cagcaggacc 240
134 tgcaggggac gagccggccg agagcccatc ggagacccca ggcccccgcc cagcaggacc 300
135 tgcaggggac gagccagcca agaccccatc ggagacccca ggccccagcc cggcaggacc 360
136 tacaagggat gagccagccg agagcccatc ggagacccca ggcccccgcc cggcaggacc 420
137 tgcaggggac gagccagccg agagcccatc ggagacccca ggcccccgcc cggcaggacc 480
138 tgcaggggac gagccagccg agagcccatc ggagacccca ggccccagcc cggcaggacc 540
139 tacaagggat gagccagcca aggcgggggа ggcagcagag ttgcaggacg cagaggtgga 600
140 gtcttctgcc aagtctggga agccttaagg aaaggagtgc ccgtcggcgt cttggtcctc 660
141 ctgtccctgc tgcaggggct ggggcctccg gagctgctgc gggctcccct caggctctgc 720
142 ttcgtgaccc gtgacccatg acccacagtg ctggcctcct gtggggccac tatagcagcc 780
143 accagaagcc gcgaggccct cagggaagcc caaggcctgc agaagcctcc tggcctggct 840
144 gtgtcttccc cacccagctc tcccctgcgc ccctgtcttt gtaaattgac ccttctggag 900
145 tgggggcgg cgggcagggc tgcttttctt agtctgatgc caagcaaggc cttttctgaa 960
146 taaattcatt tgactttg                                              978
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149 <211> LENGTH: 243
150 <212> TYPE: PRT
151 <213> ORGANISM: homo sapiens
153 <400> SEQUENCE: 4
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155  1               5                  10                  15
156 Pro His Arg Gly Thr Pro Arg Leu Asp Thr Val Arg Thr Gly Leu Arg
157             20                  25                  30
158 Arg Thr Gln Lys Val Glu Arg Gly Pro Lys Lys Val Pro Leu Gly Ala
159         35                  40                  45
160 His Arg Arg Pro Gln Ala Pro Ala Gln Gln Asp Leu Gln Gly Thr Ser
161     50                  55                  60
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Input Set : A:\2486-109REPLACEMENTSEQLISTCOPY1.TXT
Output Set: N:\CRF4\03032006\I762577B.raw

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Gln Pro Arg Ala His Arg Arg Pro Gln Ala Pro Ala Gln Gln Asp Leu
65                  70                  75                  80
Gln Gly Thr Ser Arg Pro Arg Ala His Arg Arg Pro Gln Ala Pro Ala
                85                  90                  95
Gln Gln Asp Leu Gln Gly Thr Ser Gln Pro Arg Pro His Arg Arg Pro
            100                 105                 110
Gln Ala Pro Ala Arg Gln Asp Leu Gln Gly Met Ser Gln Pro Arg Ala
        115                 120                 125
His Arg Arg Pro Gln Ala Pro Ala Arg Gln Asp Leu Gln Gly Thr Ser
    130                 135                 140
Gln Pro Arg Ala His Arg Arg Pro Gln Ala Pro Ala Arg Gln Asp Leu
145                 150                 155                 160
Gln Gly Thr Ser Gln Pro Arg Ala His Arg Arg Pro Gln Ala Pro Ala
                165                 170                 175
Arg Gln Asp Leu Gln Gly Met Ser Gln Pro Arg Arg Gly Arg Gln Gln
            180                 185                 190
Ser Cys Arg Thr Gln Arg Trp Ser Leu Leu Pro Ser Leu Gly Ser Leu
        195                 200                 205
Lys Glu Arg Ser Ala Arg Arg Arg Leu Gly Pro Pro Val Pro Ala Ala
    210                 215                 220
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225                 230                 235                 240
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<213> ORGANISM: homo sapiens
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gactatgaag aagttggtgc atgtcagaaa gaggtcttaa taacttggga taagaagttg 180
ttaaactgca gagctaaaat cagatgtgat atggaagata ttcatactct tcttaaagaa 240
ggagttccca aaagtcgacg aggagaaatt tggcagtttc tggctttaca gtaccgactc 300
agacacagat tgcctaataa acaacagcct cctgacatat cctataagga acttttgaag 360
cagctcactg ctcagcagca tgcgattctt gtggatttag gaaggacgtt tcctactcac 420
ccttactttt cagtacagct tgggccagga cagctgtcac tgtttaacct cctgaaagcc 480
tattcattct ttgctggaca aagaatggga tactgtcagg ggatcagctt tgtggctgga 540
gtcctgcttc tgcacatgag tgaagagcaa gcctttgaaa tgctgaaatt cctcatgtat 600
gacctcggct tccgcaagca gtacagacct gacatgatgt cgctgcagat tcaaatgtac 660
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ctttgaaaat attgttgagt ttcttaaaaa cacgctacct gatatgaata cctctgaaat 960
ggaaaaaatt attacccagg tttttgagat ggatatttct aagcagttgc atgcctatga 1020
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cctagaaaaa ttacaggtag ctcatactaa aatccaggcc ttggaatcaa acctggaaaa 1200
tcttttgacg agagagacca aaatgaagtc tttaatccgg accctggaac aagaaaaaat 1260
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PATENT APPLICATION: **US/09/762,577B** TIME: 10:45:23

Input Set : **A:\2486-109REPLACEMENTSEQLISTCOPY1.TXT**
Output Set: **N:\CRF4\03032006\I762577B.raw**

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215 ggcttatcaa aagacagtgg agcaactccg gaagctgctg cccgcggatg ctctagtcaa 1320
216 ttgtgacctg ttgctgagag acctaaactg caaccctaac aacaaagcca gataggaaat 1380
217 aagccataat tgaagagcac ggctcagcag aaagtgctcc ttagaatact acagagagga 1440
218 agagcctgca tgtcgctggc ccaaggctgg accctgaagc tgatggaacc acctaatact 1500
219 ggtgctgagc tcctagtcac agcaggtgga cctcgtgctc atcagagcat gccaatctaa 1560
220 gcccattgga catagtagac tggtttttgt tgttgctatg acatataaat atatatataa 1620
221 aatgaacata gttcatgctt tcagataaaa tgagtagatg tatatttaga ttaatttttt 1680
222 tagtcagaac ttcatgaaat ccacaccaaa ggaaaggtaa actgaaattt cccttggaca 1740
223 tatgtgaaat ctttttgtct ttatagtgaa acaaagccag agcatctttg tatattgcaa 1800
224 tatacttgaa aaaaatgaat gtatttttt ctccaaagaa cagcatgttt cactcaatgg 1860
225 tgaaaaggtg gaaacattta tgttaacttt atgtgttctg tcttgatatc tactgacatt 1920
226 gtctatatga ggaaaatgat tactggtcat gctcctgtga ttttttggga aggtagggtc 1980
227 atttctccct gcctgctttg tgccaactag catgttgcat ctactgcatt atgaatctgg 2040
228 tggcttactt ttaaacatac taaaaacagt aggacttggc tgaatctacc cccaggtaaa 2100
229 ggagaatgtt gcttattttt tagcaaacta acagccttat tctcaactaa aatatcacac 2160
230 ctgaaaaatt taatttttg gtgccacagt caccaaatga caaggatttg ccactttccc 2220
231 accaaattgt gagtgcttgt aatttaggtc tctctacctt aaattcagta taaggaaacg 2280
232 taattatgat tgatttttc caaagatgac aagctgtgtt gaaatacatt tttcttttga 2340
233 ccaattgaca gaatctaata agctttaata atcttcccct tttatgtgaa aagttttgag 2400
234 aactgtgaaa tgtttaggaa caaactgttg aaatccattg gaagggaaaa aagaaagtgg 2460
235 taccagtgtt accagctcaa ctaaaacctg caattgtgca tttcaacttt tcacttcctc 2520
236 agcatacaaa tagctcatta gaagacattc acgcatggtg ggtataggca aggaaagtaa 2580
237 ttttcaaagt acatttgcag ttctcttttt cagagatgat tctatgatag cgcctctgaa 2640
238 agttgatgca gcattttcgc ctttccaaaa agtatttatc ctcactgctt tttgcagtac 2700
239 ttgtattttc acagatggat tatctggggt aattttcttc aaagggagtt tgttatacac 2760
240 agtgaaaatg tattatagag tagaatagta aagctctagg ggtttcagaa agctttgatg 2820
241 aacagatgac aaacatctga aacccccctcc gcactgttac ccagtgtgta tataatgact 2880
242 tgttatagct cagtgtgccc ttgaatccat acagtttctt aaaagacaat aaaatcttat 2940
243 taataaagtt aatgtaactt ctaagttcta gaaaatgctg attctgtctg ccccattcaa 3000
244 ttgggggcta ctaattgatt tgttgcttgg atttcctgag aatttctcta tttgtaggag 3060
245 gggtttttc tttttacggt ctgttgatga caattacttt atgggtgtga tgcaccgatg 3120
246 gtagccaagg aatctgttgg ggaagttcgg aaagaaacct tttctttctt ttattcagtt 3180
247 taaagtaaac tttatcctgg atgtttagaa tcaacattaa gagttatatt atggtgttca 3240
248 gagattaagc tgacttggat acaatatttt cttttgaaaa tgaattttct ttttcatttg 3300
249 tgatttttaa aaaatgttgc accagttatg cttcatgcat cgttacatct tcatcaggtt 3360
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252 <210> SEQ ID NO: 6
253 <211> LENGTH: 366
254 <212> TYPE: PRT
255 <213> ORGANISM: homo sapiens
257 <400> SEQUENCE: 6
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260 Ser Ala Leu Glu Lys Asp Ile Gly Pro Glu Gln Phe Pro Ile Asn Glu
261             20                  25                  30
262 His Tyr Phe Gly Leu Val Asn Phe Gly Asn Thr Cys Tyr Cys Asn Ser
263         35                  40                  45
264 Val Leu Gln Ala Leu Tyr Phe Cys Arg Pro Phe Arg Glu Asn Val Leu
265     50                  55                  60
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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 03/03/2006
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Input Set : **A:\2486-109REPLACEMENTSEQLISTCOPY1.TXT**
Output Set: **N:\CRF4\03032006\I762577B.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:24; Xaa Pos. 2,4,7,16
Seq#:30; Xaa Pos. 9,14,15,20
Seq#:40; N Pos. 1,80,254,265,275,282,290,304
Seq#:42; N Pos. 15,22,24,76,77,119,153,163
Seq#:43; N Pos. 11,90,138,166,185,190,200
Seq#:49; N Pos. 163,168
Seq#:62; N Pos. 602
Seq#:63; N Pos. 35
Seq#:64; N Pos. 602
Seq#:65; N Pos. 17,25,37,41,53,68,70,144

VERIFICATION SUMMARY DATE: 03/03/2006
PATENT APPLICATION: **US/09/762,577B** TIME: 10:45:24

Input Set : **A:\2486-109REPLACEMENTSEQLISTCOPY1.TXT**
Output Set: **N:\CRF4\03032006\I762577B.raw**

L:1171 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:24
L:1172 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:1254 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:30
L:1255 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
M:341 Repeated in SeqNo=30
L:1562 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0
M:341 Repeated in SeqNo=40
L:1590 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0
M:341 Repeated in SeqNo=42
L:1605 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0
M:341 Repeated in SeqNo=43
L:2040 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:120
L:2347 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:600
L:2360 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:0
L:2389 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:600
L:2402 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:0
M:341 Repeated in SeqNo=65